Safety Data Sheet According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 20/01/2020 Date of issue: 04/11/2013

Version: 4.0

NuSil

Avantor

SECTION 1: Identification of the Substance/mixture and of the Company/Undertaking

1.1. Product Identifier

Product form Product Name Synonyms Mixture MED-4102-7 Colour Masterbatch

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

1.2.1. Relevant Identified Uses Use of the Substance/Mixture

For professional use only.

1.2.2. Uses Advised Against

No additional information available

1.3. Details of the Supplier of the Safety Data Sheet

NuSil Technology Europe 1198 Avenue Maurice Donat Le Natura Bt. 2 06250 Mougins France +33 4 92 96 93 31 ehs@nusil.com www.nusil.com

1.4. Emergency Telephone Number

Emergency Number

: 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC (International and Maritime) +(44)-870-8200418 +(353)-19014670

SECTION 2: Hazards Identification

2.1. Classification of the Substance or Mixture

Classification According to Regulation (EC) No. 1272/2008 [CLP] Not classified

2.2. Label Elements

Labelling According to Regulation (EC) No. 1272/2008 [CLP] No labelling applicable

2.3. Other Hazards

Contains vPvB substances >= 0.1% assessed in accordance with REACH Annex XIIIOther Hazards Not Contributing
to the ClassificationExposure may aggravate pre-existing eye, skin, or respiratory
conditions.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

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3.2. Mixture

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2 (EC-No.) 209-136-7 (EC Index-No.) 014-018-00-1	< 1	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Repr. 2, H361f Aquatic Chronic 4, H413
Decamethylcyclopentasiloxane	(CAS-No.) 541-02-6 (EC-No.) 208-764-9	< 1	Not classified
Dodecamethylcyclohexasiloxane	(CAS-No.) 540-97-6 (EC-No.) 208-762-8	< 1	Not classified

SECTION 4: First Aid Measures

4.1. **Description of First-aid Measures**

First-Aid Measures General	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-Aid Measures After	When symptoms occur: go into open air and ventilate
Inhalation	suspected area. Obtain medical attention if breathing difficulty persists.
First-Aid Measures After Skin	Remove contaminated clothing. Drench affected area with
Contact	water for at least 5 minutes. Obtain medical attention if irritation develops or persists.
First-Aid Measures After Eye	Rinse cautiously with water for at least 5 minutes. Remove
Contact	contact lenses, if present and easy to do. Continue rinsing.
	Obtain medical attention if irritation develops or persists.
First-Aid Measures After	Rinse mouth. Do NOT induce vomiting. Obtain medical
Ingestion	attention.
4.2. Most Important Symptoms	and Effects Both Acute and Delayed
Symptoms/Effects	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/Effects After	Prolonged exposure may cause irritation.
Inhalation	
Symptoms/Effects After Skin	Prolonged exposure may cause skin irritation.
Contact	
Symptoms/Effects After Eye Contact	May cause slight irritation to eyes.
Symptoms/Effects After Ingestion	Ingestion may cause adverse effects.
Chronic Symptoms	None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed 4.3. If exposed or concerned, get medical advice and attention. If medical advice is needed, have

product container or label at hand.

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SECTION 5: Firefighting Measures

5.1. Extinguishing Media

Suitable Extinguishing Media	Water spray, fog, carbon dioxide (CO2), alcohol-resistant foam,
	or dry chemical.
Unsuitable Extinguishing Media	Do not use a heavy water stream. Use of heavy stream of water
	may spread fire.
5.2. Special Hazards Arising F	rom the Substance or Mixture
Fire Hazard	Not considered flammable but may burn at high temperatures.
Explosion Hazard	Product is not explosive.
Reactivity	Hazardous reactions will not occur under normal conditions.
5.3. Advice for Firefighters	
Precautionary Measures Fire	Exercise caution when fighting any chemical fire.
Firefighting Instructions	Use water spray or fog for cooling exposed containers.
Protection During Firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures	Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapour, mist, spray).
6.1.1. For Non-Emergency Personr	nel
Protective Equipment	Use appropriate personal protective equipment (PPE).
Emergency Procedures	Evacuate unnecessary personnel.
6.1.2. For Emergency Responders	
Protective Equipment	Equip cleanup crew with proper protection.
Emergency Procedures	Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.
6.2. Environmental Precaution	S

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment	Contain any spills with dikes or absorbents to prevent migration
	and entry into sewers or streams.
Methods For Cleaning Up	Clean up spills immediately and dispose of waste safely.
	Transfer spilled material to a suitable container for disposal.
	Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling

Precautions for Safe Handling	Wash hands and other exposed areas with mild soap and
	water before eating, drinking or smoking and when leaving
	work. Avoid prolonged contact with eyes, skin and clothing.
	Avoid breathing vapours, mist, spray.

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Hygiene Measures	Handle in accordance with good industrial hygiene and safety
	procedures.
7.2. Conditions for Safe Storag	ge, Including Any Incompatibilities
Technical Measures	Comply with applicable regulations.
Storage Conditions	Keep container closed when not in use. Store in a dry, cool
	place. Keep/Store away from direct sunlight, extremely high or
	low temperatures and incompatible materials.

Strong acids, strong bases, strong oxidizers.

Incompatible Materials

7.3. Specific End Use(S)

For extrusion, transfer and compression molding and calendaring. For professional use only.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters 8.1.

No additional information available

8.2. **Exposure Controls**

Appropriate Engineering	Suitable eye/body wash equipment should be availab
Controls	vicinity of any potential exposure. Ensure adequate ve
	especially in confined areas. Ensure all national/local
	regulations are observed

Personal Protective Equipment

ole in the entilation, regulations are observed.

Gloves. Protective clothing. Protective goggles.



Materials for Protective Clothing	Chemically resistant materials and fabrics.
Hand Protection	Wear protective gloves.
Eye Protection	Chemical safety goggles.
Skin and Body Protection	Wear suitable protective clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced,
	approved respiratory protection should be worn. In case of
	inadequate ventilation, oxygen deficient atmosphere, or where
	exposure levels are not known wear approved respiratory
	protection.
Other Information	When using, do not eat, drink or smoke.

SECTION 9: Physical and Chemical Hazards

9.1. Information on Basic Physical and Chemical Properties

Physical State	Liquid
Colour	Blue
Odour	Odourless
Odour Threshold	No data available
рН	No data available
Evaporation Rate	No data available
Melting Point	No data available
Freezing Point	No data available
Boiling Point	No data available
Flash Point	>135 °C (275 °F)
Auto-Ignition Temperature	No data available

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Decomposition Temperature		No data available
Flammability (Solid, Gas)		Not applicable
Vapour Pressure		No data available
Relative Vapour Density At 20 °C		No data available
Relative Density		> 1 (Water=1)
Solubility		No data available
Partition Coefficient n-Octanol/V	Vater	No data available
Viscosity, Kinematic		No data available
Viscosity, Dynamic		No data available
Explosive Properties		No data available
Oxidising Properties		No data available
Explosive Limits		No data available
9.2. Other Information		
VOC content	<1%	

SECTION 10: Stability and Reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility Of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions To Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products

Carbon oxides (CO, CO₂). Silicon oxides. Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapours. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.

SECTION 11: Toxicological Information

11.1. Information On Toxicological Effects

Acute Toxicity	Not classified (Based on available data, the classification criteria are not met)	
Octamethylcyclotetrasiloxane	(556-67-2)	
LD50 oral rat	1540 mg/kg	
LD50 dermal rabbit	794 µl/kg	
LC50 inhalation rat (mg/l)	36 g/m³ (Exposure time: 4 h)	
Decamethylcyclopentasiloxar	ne (541-02-6)	
LD50 Oral Rat	> 5000 mg/kg (Species: Sprague-Dawley)	
LD50 Dermal Rabbit	> 2000 mg/kg (Species: New Zealand White) No deaths reported	
LC50 Inhalation Rat	8,67 mg/l/4h (Species: Fischer)	
Dodecamethylcyclohexasilox	ane (540-97-6)	
LD50 Oral Rat	> 50 g/kg	
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Skin Corrosion/Irritation	Not classified (Based on available data, the classification criteria are not met)	
Eye Damage/Irritation	Not classified (Based on available data, the classification criteria are not met)	
Respiratory or Skin Sensitization	Not classified (Based on available data, the classification criteria are not met)	
Germ Cell Mutagenicity	Not classified (Based on available data, the classification criteria are not met)	
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)	
Reproductive Toxicity	Not classified (Based on available data, the classification criteria are not met)	
Specific Target Organ Toxicity (Single Exposure)	Not classified (Based on available data, the classification criteria are not met)	
Specific Target Organ Toxicity (Rep Exposure)	Deated Not classified (Based on available data, the classification criteria are not met)	
Aspiration Hazard	Not classified (Based on available data, the classification criteria are not met)	

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - General	Not classified.	
Octamethylcyclotetrasiloxan	e (556-67-2)	
LC50 fish 1	> 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)	
LC50 fish 2	> 1000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)	
12.2. Persistence and Degre	adability	
MED-4102-7		
Persistence and Degradabilit	y Not established.	
12.3. Bioaccumulative Pote	ntial	
MED-4102-7		
Bioaccumulative potential	Not established.	
12.4. Mobility in Soil		
No additional information avail	ilable	
12.5. Results of PBT and vPv	B assessment	
Octamethylcyclotetrasiloxane (556-67-2)		
This substance/mixture meets the vPvB criteria of REACH regulation, annex XIII		
Decamethylcyclopentasiloxc	ine (541-02-6)	
This substance/mixture meets	the vPvB criteria of REACH regulation, annex XIII	
Dodecamethylcyclohexasilox	(ane (540-97-6)	
This substance/mixture meets	the vPvB criteria of REACH regulation, annex XIII	

12.6. Other Adverse Effects

Other Information

Avoid release to the environment.

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SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Product/Packaging Disposal Recommendations Ecology - Waste Materials Dispose of contents/container in accordance with local, regional, national, and international regulations. Avoid release to the environment.

SECTION 14: Transport Information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued. In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN Number	
Not regulated for transport	
14.2. UN Proper Shipping Name	
Not regulated for transport	
14.3. Transport Hazard Class(Es)	
Not regulated for transport	
14.4. Packing Group	
Not regulated for transport	
14.5. Environmental Hazards	
Not regulated for transport	

14.6. Special Precautions For User

No additional information available

14.7. Transport in Bulk According to Annex II of MARPOL and The IBC Code Not applicable

SECTION 15: Regulatory Information

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit:

Octamethylcyclotetrasiloxane (D4) (EC 209-136-7, CAS 556-67-2)

Decamethylcyclopentasiloxane (D5) (EC 208-764-9, CAS 541-02-6),

Dodecamethylcyclohexasiloxane (D6) (EC 208-762-8, CAS 540-97-6)

Contains no REACH Annex XIV substances

15.1.2. National Regulations

No additional information available

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

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SECTION 16: Other Information

Indication of Changes

Section	Section Header	Change	Date Changed
1	Identification of the Substance/mixture and of the	Modified	20/01/2020
	Company/Undertaking		
2	Hazards identification	Modified	20/01/2020
3	Composition/information on ingredients	Modified	20/01/2020
11	Toxicological information	Modified	20/01/2020
12	Ecological Information	Modified	20/01/2020
15	Regulatory information	Modified	20/01/2020

Date of Preparation or Latest 20/01/2020 Revision Data Sources

Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites,

product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent

adoption of GHS.

Other Information

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Abbreviations and Acronyms

Abbieviations and Actorynis	
ACGIH – American Conference of Governmental Industrial Hygienists	MARPOL - International Convention for the Prevention of Pollution
ADN – European Agreement Concerning the International Carriage of Dangerous	NDS - Najwyzsze Dopuszczalne Stezenie
Goods by Inland Waterways	NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe
ADR - European Agreement Concerning the International Carriage of Dangerous	NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe
Goods by Road	NOAEL - No-Observed Adverse Effect Level
ATE - Acute Toxicity Estimate	NOEC - No-Observed Effect Concentration
BCF - Bioconcentration Factor	NRD - Nevirsytinas Ribinis Dydis
BEI - Biological Exposure Indices (BEI)	NTP – National Toxicology Program
BOD – Biochemical Oxygen Demand	OEL - Occupational Exposure Limits
CAS No Chemical Abstracts Service Number	PBT - Persistent, Bioaccumulative and Toxic
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008	PEL - Permissible Exposure Limit
COD – Chemical Oxygen Demand	pH – Potential Hydrogen
EC – European Community	REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals
EC50 - Median Effective Concentration	RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail
EEC – European Economic Community	SADT - Self Accelerating Decomposition Temperature
EINECS – European Inventory of Existing Commercial Chemical Substances	SDS - Safety Data Sheet
EmS-No. (Fire) - IMDG Emergency Schedule Fire	STEL - Short Term Exposure Limit
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage	TA-Luft - Technische Anleitung zur Reinhaltung der Luft
EU – European Union	TEL TRK – Technical Guidance Concentrations
ErC50 - EC50 in Terms of Reduction Growth Rate	ThOD – Theoretical Oxygen Demand
GHS – Globally Harmonized System of Classification and Labeling of Chemicals	TLM - Median Tolerance Limit
IARC - International Agency for Research on Cancer	TLV - Threshold Limit Value
IATA - International Air Transport Association	TPRD - Trumpalaikio Poveikio Ribinis Dydis
IBC Code - International Bulk Chemical Code	TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in
IMDG - International Maritime Dangerous Goods	ortsbeweglichen Behältern
IPRV - Ilgalaikio Poveikio Ribinis Dydis	TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine
IOELV – Indicative Occupational Exposure Limit Value	TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte
LC50 - Median Lethal Concentration	TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte
LD50 - Median Lethal Dose	TSCA - Toxic Substances Control Act
LOAEL - Lowest Observed Adverse Effect Level	TWA - Time Weighted Average
LOEC - Lowest-Observed-Effect Concentration	VOC – Volatile Organic Compounds
Log Koc - Soil Organic Carbon-water Partitioning Coefficient	VLA-EC - Valor Límite Ambiental Exposición de Corta Duración
Log Kow - Octanol/water Partition Coefficient	VLA-ED - Valor Límite Ambiental Exposición Diaria
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a	VLE – Valeur Limite D'exposition
two-phase system consisting of two largely immiscible solvents, in this case octanol	VME – Valeur Limite De Moyenne Exposition
and water	vPvB - Very Persistent and Very Bioaccumulative
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration	WEL – Workplace Exposure Limit
	WGK - Wassergefährdungsklasse

Nusil FU GHS SDS

The information provided in this Safety Data Sheet (SDS) was prepared based on data believed to be accurate as of the date of this SDS. TO THE GREATEST EXTENT PERMITTED BY LAW, NUSIL TECHNOLOGY LLC AND ITS AFFILIATED COMPANIES ("NUSIL") EXPRESSLYDISCLAIMS ANY AND ALL

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